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D E C I S I O N
of 16 July 1994

Case Number: T 1067/92 - 3.4.1

Application Number: 89630158.7

Publication Number: 0371903

IPC: G01T 1/161

Language of the proceedings: EN

Title of invention:

Detector and localizer for low energy radiation emissions

Applicant:

Neoprobe Corporation

Opponent:

-

Headword:

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Relevant legal norms:

EPC Art. 111(1)

EPC R. 86(3)

Keyword:

"Substantially modified claims filed with the Statement of
Grounds of Appeal"

"Remittal to the Examining Division"

Decisions cited:

T 0063/86, T 0300/89

Catchword:

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Boards of Appeal

Chambres de recours

Case Number: T 1067/92 - 3.4.1

D E C I S I O N
of the Technical Board of Appeal 3.4.1
of 16 July 1994

Appellant: Neoprobe Corporation
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Representative: Waxweiler, J.
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Decision under appeal: Decision of the Examining Division 061 of the
European Patent Office dated 2 July 1992 refusing
European patent application No. 89 630 158.7
pursuant to Article 97(1) EPC.

Composition of the Board:

Chairman: G.D. Paterson
Members: Y. van Henden
U.G.O. Himmler

Summary of Facts and Submissions

I. European patent application No. 89 630 158.7 (publication No. 0 371 903) was refused by decision of the Examining Division.

II. The decision is based on a replacement Claim 1 filed on 27 February 1992 and reading

"An instrument for detecting and locating sources of radiation emission having predetermined energy levels, comprising:

a housing (70) having a forwardly disposed portion (72);

a crystal mount (76) positioned within said housing forwardly disposed portion, formed of material attenuating radiation of said predetermined energy levels and having a forwardly disposed crystal receiving cavity (104) having sidewalls (94) extending inwardly thereinto to an electrically insulative surface (96) from a forwardly disposed opening;

a radiation responsive crystal (114) located within said cavity (104) having a rearwardly disposed surface (116) positioned facing said electrically insulative surface (96) and having a side portion (97) extending to a forwardly disposed surface (118);

biasing means (100) extending within said cavity and having a bias contact adjacent said electrically insulative surface (96);

grounding means (122-125) for applying an electrical ground to said crystal forwardly disposed surface (118);

resilient retainer means (136) positioned in tension over the assemblage of said grounding means (122-125), said crystal (114) and said biasing means (100); and

forward cover means (140) positioned over and enclosing said crystal mount (76), said crystal (114), said grounding means (122-125), and said resilient retainer means (136) for permitting transmission of said radiation emission of said predetermined energy levels; characterized by:

a first electrically conductive compliant member (112) which is conformable with and is in physical and electrical contacting adjacency with said crystal rearwardly disposed surface (116) and is in physical and electrical contacting adjacency with said bias contact (100) and transmits electrical bias from said bias contact (100) to said crystal (114) rearwardly disposed surface (116);

a second electrically conductive compliant member (120) having a first surface conformable with and in physical and electrical contacting adjacency with said crystal forwardly disposed surface (118) and having a second surface opposite said first surface in physical and electrical contact with said grounding means (122-125) for applying said electrical ground to said crystal forwardly disposed surface (118); and

that said grounding means (122-125) includes a wire lead electrically coupled with said housing (70) and extending over and in abutting contact with said second surface of said second electrically conductive compliant member (120)."

An independent Claim 16 also received on 27 February 1992 was directed to a method of fabricating an instrument according to Claim 1. To the independent Claims 1 and 16 were respectively appended further Claims 2 to 15 and 17 to 20 received on 21 June 1991.

III. The Examining Division grounded its decision in substance as follows:

The only difference between the subject-matter of Claim 1 and the instrument described in document

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with reference to Figure 4A is the provision of the lead wire forming part of the grounding means and electrically coupled with the housing (66). To the skilled person, however, such a wire is an obvious alternative to the aluminium band used for the same purpose in the instrument known from (D1). Besides, a wire is not necessarily cylindrical.

The arguments the Applicant set forth in support of inventive step are not convincing. Some of them refer to details such as the use of non-woven Teflon cloth (Goretex) filled with carbon particles and the use of thin wires, i.e. to features which are not mentioned in Claim 1. Therefore, they may not be taken into consideration. Finally, the alleged contribution of the lead wire to noise reduction is merely a side-effect which cannot be considered as evidence of an inventive step.

Claim 1, therefore, lacks an inventive step. The dependent Claims 2 to 15 and the method Claims 16 to 20 do not involve an inventive step either for they respectively relate to normal design possibilities and to normal procedures of fabrication.

IV. The Applicant lodged an appeal against the decision of the Examining Division.

V. With its Statement of Grounds of Appeal, the Appellant submitted a new set of fourteen claims to replace those previously on file. The first claim of this set differs from Claim 1 as refused by the Examining Division in amendments to the characterising part, namely

- the insertion of "one surface of which" in the first clause, after "which is conformable with and";
- the insertion of "an opposite surface of which" after "rearwardly disposed surface (116) and", in the first clause;
- the insertion of "freely abutting" respectively after and before the first mention of "physical and electrical contacting" in the first and second clauses;
- the insertion of "freely" before "abutting contact" in the third clause;
- the deletion of "and" at the end of the third clause and of "that" at the beginning of the fourth clause, and
- the addition of a fifth and a sixth clause reading

"said radiation responsive crystal side portion (97) is spaced from said crystal receiving cavity sidewall (94) a distance (95) selected to effect a substantially non-contacting relationship therebetween; and

that said resilient retainer means (136) is a woven nylon web fixed to said crystal mount (76) and stretched in tension over the assemblage of said grounding means wire lead (122-125), said first electrically conductive compliant member (112), said

crystal (114), said second electrically conductive compliant member (120) and said biasing means (100) to an extent providing a compressive retention of adjacent said freely abutting components of said assemblage to secure them against relative movement therebetween to avoid the generation by said crystal of piezoelectric noise."

Independent Claim 11 of the new set covers a method of fabricating an instrument according to Claim 1. The remaining Claims 2 to 10 and 12 to 14 are respectively appended to Claim 1 and to Claim 11.

- VI. The Appellant requests that the decision of the Examining Division be set aside and that a European patent be granted on the basis of the new set of claims filed with the Statement of Grounds of Appeal.

The Appellant furthermore requested the issuance of an interim report before taking a decision.

- VII. In support of these requests, the Appellant argued substantially as follows:

The initial design disclosed in document (D1) made use of carbon filled inserts of silicon rubber against both sides of the cadmium telluride crystal. It was found, however, that cadmium telluride crystals generate noises when submitted to vibrations, so that it was thought necessary to provide a structure comprising ground and biasing leads adhesively coupled to each side of the crystal. Such a structure is represented on Figures 25 and 26 of (D1), and has direct connections of the bias and ground leads to the crystal faces. Thereby, the leads do not rub against the crystal's faces and no

piezoelectric noises are generated. Nevertheless, this structure appeared not to be satisfactory because of a discontinuity of the gold-plating on the crystal.

Thus confronted with two structures which failed, the Applicant nonetheless returned to the use of resilient members in freely abutting contact, as earlier attempted. The freely abutting contact, however, is now secured with a nylon web which compresses the assemblage of components to an extent precluding relative movement between said components, whereby noise generation and outgassing are prevented. Furthermore, the Applicant recognised the need for a gap between the lateral portions of the crystal and the latter's mount. As a matter of fact, it is submitted that an important aspect of the present invention is to have realised that it was the first version of the invention disclosed in (D1) which was approaching the problem in the correct manner, i.e. that there should be no contact between the faces of the crystal and the biasing wires or grounding component. It was also perceived that using a wire as grounding component avoids the problem of relative movement while minimising interferences with incident radiation. Finally, the design of an instrument according to Claim 1 is compatible with the advantageous manufacturing process covered by Claim 11.

Reasons for the Decision

1. The insertions in the first three characterising clauses of Claim 1 - cf. paragraph V of the present decision - are taken from the dependent Claims 2, 4 and 9 of the patent application as originally filed, whereas the features mentioned in the additional fourth and fifth

characterising clauses of the claim were initially recited in the dependent Claims 11, 13, 15 and 16.

Concerning these original claims, the Examining Division had, in a first communication issued on 8 February 1991 and referred to in paragraph II.5 of the impugned decision, taken the view that they would be directed to normal design possibilities not involving an inventive step. Nevertheless, the Examining Division did not substantiate this assertion.

2. The Board, however, observes that the mention of a resilient retainer means (136) in Claim 1 as refused by the Examining Division covers a wide variety of embodiments going, for instance, from rubber members to steel washers or springs. Therefore, the mention in new Claim 1 of a resilient retainer means which is a woven nylon web both restricts the scope of the claimed protection and defines mechanical properties of said retainer means. Furthermore, the achievement of the result expected from the choice of a woven nylon web as resilient retainer, and from the provision of the clearance (95) between the crystal (114) and the sidewall (94), namely the prevention of piezoelectric noise generation, does not seem unlikely.

In the Board's judgment, therefore, the amendments to Claim 1 which the Appellant has proposed in the appeal proceedings require a substantial further examination in relation to both the formal and substantive requirements of the EPC. As stated in Decision T 63/86 (OJ EPO 1988, 224), such further examination should be carried out by the Examining Division as the first instance after the Examining Division has itself exercised its discretion under Rule 86(3) EPC. The reasons for this are discussed fully in paragraph 2 of the Decision.

3. In the present case, since the Appellant no longer seeks grant of a patent including independent Claims 1 and 16 with text and subject-matter as rejected by the Examining Division, but has filed a new request containing a substantially amended text for Claim 1 and for an independent method Claim 11, it is clearly appropriate that the case should be remitted to the Examining Division in accordance with Decision T 63/86.

The Board also refers to Decision T 300/89 (OJ EPO 1990, 9), where it was stated in particular that "the burden lies upon an applicant (if he so wishes) to propose amendments (including by way of auxiliary requests) which overcome the objections raised by the Examining Division, in his observations in reply to the first communication in which such objections are raised". Clearly, the filing of a new request for the first time in the Statement of Grounds of Appeal, as in the present case, inevitably leads to undesirable procedural delay.

4. It is furthermore clear that a decision ordering the remittal of a case to a first instance does not deprive the Appellant from any right whatsoever. The Board thus considers that the Appellant's request of issuance of an intermediate communication has no object. Therefore, the Board decides to remit the case to the Examining Division.

Order

For these reasons, it is decided that:

1. The contested decision is set aside.
2. The case is remitted to the first instance for further examination of the application having regard to the request set out in the Statement of Grounds of Appeal.

The Registrar:



M. Beer

The Chairman:



G.D. Paterson



